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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/623,068 08/26/00 MCGINNIS

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HM12/0223

EXAMINER

HORLICK, K

ART UNIT

PAPER NUMBER

1656

4

DATE MAILED:

02/23/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

**Office Action Summary**

Application No.

09/623,068

Applicant(s)

MCGINNIS ET AL.

Examiner

Kenneth R Horlick

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-20, 22, 33-50, 52, and 78-96 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 21, 23-32, 51, and 53-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

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1. The specification is objected to because of the following informality: it lacks a heading and section "Brief Description of the Drawings". Correction is required.
2. Claims 1, 2, 21, 23-32, 51, and 53-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - A) Claims 1 and 2 are confusing because they do not "distinctly claim" any invention. Such claims are clearly not in compliance with U.S. patent practice.
  - B) Claims 21, 30, 51, and 53 are confusing because it is unclear how a process can "comprise a computer program". Applicant may wish to amend the claims to recite a process which comprises the use of a computer program.
  - C) Claim 23 is confusing because of the language "as in any one of claim 22". Correction is required.
  - D) Claims 28 and 29 are confusing because they recite a further step "f", but the prior claims already have a step "f". It is unclear if a further step "g" is intended.

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E) Apparatus claims 24-27, 31, 32, and 54-58 are confusing because they do not set forth any searchable apparatus components. These claims are clearly not in proper "means plus function" format, as they merely refer to steps of prior method claims. Thus, it is completely unclear what apparatus is encompassed in the claims, and on what basis a prior art search should be conducted.

F) Claims 59-77 are confusing because they are drawn merely to a "use". While minute details are not required in method claims, at least the basic steps must be recited in a positive, active fashion. See Ex parte Erlich, 3 USPQ2d, p. 1011 (Bd. Pat. App. Int. 1986).

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 2, and 59-77 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Neither an "invention" nor "use" is included in the statutory categories of inventions.

4. Claims 3-20, 22, 33-50, 52, and 78-96 are allowable. Claims 1, 2, 21, 23-32, 51, and 53-77 are free of the prior art, but are rejected for other reasons. The closest prior art is Kruglyak (1997) which is discussed on page 4 of the specification, and teaches the use of a genetic map of biallelic markers in linkage studies. No prior art has been found teaching or suggesting a set of oligonucleotides complementary to a group of two

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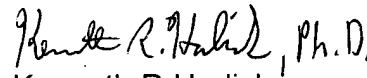
or more bi-allelic covering markers of the same species, said group systematically covering a CL-F region, the CL-F region being a collection of points on a two-dimensional plane, the two-dimensional plane having the two orthogonal dimensions of chromosomal location and least common allele frequency; nor methods involving detection or determination of such a group of markers.

5. EP 0 892 068, disclosing a method for generating a high density linkage disequilibrium map of the human genome, is made of record as a reference of interest.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R Horlick whose telephone number is 703-308-3905. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Margaret Parr can be reached on 703-308-2454. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-0294 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

  
Kenneth R Horlick  
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February 14, 2001

**KENNETH R. HORLICK  
PRIMARY EXAMINER  
GROUP 1800/1600**